Appendix A. Glossary of Use Case Terms

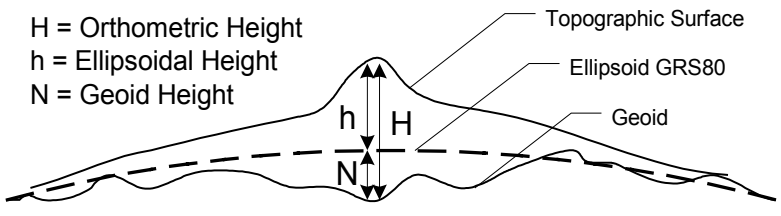
This glossary is a snapshot of the definitions for the use cases in this version of the requirement document. Since this document will evolve during the design processes, a single, unified glossary will be maintained.

The NILS Unified Glossary will be available from the NILS web page, **http://www-a.blm.gov/nils/**.

Term	Definition
Accuracy See ***Precision***	1. The degree of conformity or closeness of a measurement to the true value. [Mikhail and Gracie] 2. Nearness to truth. [Brown] 3. Degree of conformity with a standard. Accuracy relates to the quality of a result, and is distinguished from precision, which relates to the quality of the operation by which the result is obtained. [ACSM]
Adjusted point	A point whose coordinates are the result of an *adjusted measurement network*.
Adjustment limits	Values that indicate when sufficient numbers of *least square analysis* iterations have been reached. This prevents endless looping of iterations. There are two types of limits: *residual tolerance* and *iteration limit*.
Administrative area	1. An area of land managed for a specific purpose. Examples: USFS National Forest, BLM District, Land Planning Zone, county, etc. 2. An organizational unit. The unit has distinct jurisdictional responsibility for all activities in a geographic area.
Administrative survey	This is a series of *measurements* and *observations* that are done for the purpose of describing the limits or conditions of a public decision. Administrative surveys are gathered for informational purposes and are not intended to provide information on the extent of legal *rights* and interests.
ALTA	American Land Title Association
Analyze/adjust parameter form	A data entry form accessible prior to the adjustment where the user can control meaningful aspects of the adjustment, such as use of point elevations, use of *weighting*, *adjustment limits*, *robusting option.*
Anomaly	Anything irregular or abnormal.
Anomaly correction	Process to edit and correct anything irregular or abnormal (*blunder*, *error*) in *measurement data*.
Anomaly detection	Process to identify anything irregular or abnormal (*blunder*, *error*) in *measurement data*.
Area of Applicability	The geographic extent of an *event*. This is the extent for which the *event* is applicable. An *event* is available for subscription if a *subscriber's area of interest* overlaps any part of the area of applicability. The area of applicability is defined by pre-defined frameworks or registration cells such as states, counties, or PLSS Townships. In future releases, this restriction may be omitted.

Term	Definition
Area of interest	Represents the geographic extent of data to be processed. An area of interest can be specified by the *browser* or *subscriber* from "free form" or user defined footprints or by registering to pre-defined cells, frameworks, or reference grids.
Blunder See ***Error***	1. A mistake. A blunder is not an error, although infrequently a blunder is called a gross error. 2. A mistake. A blunder is not an error, though a small blunder may remain undetected in a series of observations and have the effect of an error in determining the result. Examples of blunders are (1) reading a horizontal circle incorrectly by an even degree; (2) neglecting to record a tape length in a measured traverse; and (3) reversing the numerals in recording an observation. [ACSM] 3. MISTAKE-A mistake is not an error, but is a blunder on the part of the observer. [Moffitt and Bouchard] 4. GROSS ERRORS are the results of blunders or mistakes that are due to carelessness of the observer [Mikhail and Gracie] 5. A mistake. Not an error. [Brown]
Boundary	1. A boundary (also land boundary) is a line of demarcation between adjoining land *parcels* as determined by legal descriptions. Boundaries can be marked by monuments, fences, hedges, and so on, or not at all. 2. LAND BOUNDARY-A line of demarcation between adjoining parcels of land. The parcels of land may be of the same or of different ownership, but distinguished at some time in the history of their descent by separate legal descriptions. A land boundary may be marked on the ground by material monuments placed primarily for the purpose-by fences, hedges, ditches, roads, and other service structures along the line-or defined by astronomically described points and lines; by coordinates on a survey system whose position on the ground is witnessed by material monuments which are established without reference to the boundary line; and by various other methods. [ACSM] 3. LAND BOUNDARY-Usually the line of demarcation between adjoining land parcels as determined by legal descriptions. Land boundaries can be marked by monuments, fences, hedges, etc. or not at all. [Brown]
Boundary survey	A survey made to establish or to re-establish a boundary line on the ground or to obtain data for constructing a map or plat showing a boundary line. The term boundary survey is usually restricted to surveys of boundary lines between political territories. [ACSM]
Browser	A Browser has the limited functionality of viewing research results and navigating to Provider URLs. A Browser can opt to become a *Subscriber* by requesting a Subscriber Account. A Browser may retrieve data that is downloadable from provider storage locations to local disk.
Bureau motion	A land action initiated by the Bureau of Land Management or another federal entity.

Term	Definition
Catalog **Data catalog** **Event catalog**	A listing of *data* by *category type* (data, activity *event*, communication *event*, etc.) that may contain any or all of the following: metadata (description), current-to date, location/path to local storage, access restrictions, spatial reference, spatial extent, duration dates, data events (notification flags), activity events or communication medium events. Also called Catalog Information. Information from the provider catalogs will be used by the administrator to construct the master index.
Category	Indicates the lumping together of similar individual data sets, activity *events*, reference information, or communication *events* to facilitate the ***GC-01 Conduct Search*** process. Broad categories such as *data*, activity *events*, and so on, will be subdivided into smaller categories such as transportation data and field survey activities. The ***GC-02 Browse Search Results*** use case would display all items under the selected categories.
Category types	Indicates an item to query, an item to subscribe to, or an item to submit for e-mail notification. Examples include data category, activity event category, reference information category, forum category, email group category, chat group category, information notice category, information request category.
COGO procedure parameter form	A list of configuration options to assist the user in the setup of *COGO procedures*.
COGO procedures	A unique set of Coordinate Geometry (COGO) *computations* used to calculate coordinate positions. Example position calculation methods: *in-field coordinate geometry* (e.g.*, bearing/bearing intersection)* and *layout by angle and distance*.
Computation	A set of processing methods or algorithms applied to achieve a desired solution. *COGO Procedures* use computations.
Computation device	The computing hardware system and processing software for deriving *observations* and *measurements* from *readings*. May be used with a *data collection device* on the same computing hardware system.
Control	In general, coordinated and correlated position data forming a framework to which detail surveys are adjusted. Basic control may be either horizontal or vertical; it is usually executed with greater precision and accuracy than is required for dependent surveys. Also the point or points permanent in character within a network of basic control, for which the coordinates and/or elevation to a specific accuracy are known and which are used as origin and closure for making a control survey or for making an engineering, cadastral, or other survey. [ACSM]
Conveyance	A transfer of legal title to land or *rights*. An instrument, such as a deed, patent, tentative approval or interim conveyance, by which interest in mineral and/or real property is transferred from grantor to grantee.

Term	Definition
Data (GeoCommunicator)	Any and all non-event information, regardless, of format or medium, that is searchable by GeoCommunicator users. Geo-Referenced-Raster or vector data that contain world coordinates. Geo-Related-Data that is associated or linked to a point or area entity (spatial objects). Examples: Survey Plat of a township; Patents and deeds linked to a *parcel* by *legal descriptions*. Reference Document-Helpful technical information related to *events* or data. May have no direct relationship with a spatial data set (e.g. manuals, Request For Information (RFI), reports, etc.). Data may be packaged as a set of associated data elements from various categories. Data categories that have a *spatial extent* (footprint) can be displayed and searched for spatially. *Categories* of data include spatial layers, tabular, images, *reference documents*, *data discrepancies* and proposed layers, etc. Some *reference documents* may have no direct relationship with a specific spatial data set (e.g., manuals, Request For Information (RFI), reports, etc.).
Data collection device	An instrument for digital storage of *readings* and information about those *readings*. Information may be manual or digital input. Typically a personal computer capable connected to a *measurement device*.
Data discrepancy	Data sets of the same *category* in the same spatial extent whose positions (coordinates) and/or attributes do not match.
Data provider form	Captures input from a data provider resulting in the creation or modification of data provider account information.
Data set	A collection of data, such as an array or table of data items, a file, a program, or any other organized unit of data. Field survey data set-The set of reference data transferred to a data collection device for use in the field (i.e. coverages, images and documents.) that pertains to a *Survey Project*.
Deed description	A measurement as defined in a deed *legal description*.
Default spatial extent	Default spatial search area defined by the site administrator.
Defining measurement	A *measurement* in a conveyance instrument that defines an area of land.
Ellipsoidal height	The distance from the ellipsoid to a point measured along a line normal to the ellipsoid. [BLM Training] 

Term	Definition
Engineering/ Construction survey	Construction-The survey measurements made, while construction is in progress to control elevation, horizontal position and dimensions and configuration; to determine adequacy of completion; and to obtain essential dimensions for computing construction pay quantities. [ASCM] Engineering-A survey executed for the purpose of obtaining information that is essential for planning an engineering project or development and estimating its cost. The information obtained may, in part be recorded in the form of an engineering map or plat. [ACSM]
Error See ***Blunder***	1. An error is the difference between the true value of a quantity and the measured value of the same quantity. 2. The difference between an observed or computed value of a quantity and the ideal or true value of that quantity. Because the ideal or true value of a quantity, with few exceptions, cannot be known with exactness, the term error is applied to a difference between an observed or computed value of a quantity and some standard or accepted value used in lieu of the ideal or true value. [ACSM] 3. An error is the difference between the true value of a quantity and the measured value of the same quantity. Errors result from instrumental imperfections, personal limitations, and natural conditions affecting the measurement. [Moffitt and Bouchard] 4. Errors have been traditionally classified into three types: (1) *gross* errors, (2) *systematic* errors, and (3) *random* errors. [Mikhail and Gracie] 5. The difference between a measured value and the true value. A smaller magnitude; not a mistake or blunder. [Brown] 6. Since the true value of a measured quantity can never be determined, errors are likewise indeterminate, and hence they are strictly theoretical quantities. [Wolf]
Error ellipse	An ellipse surrounding an adjusted coordinate describing the likelihood of the true value to be close to the adjusted value. In SM and MM extensions, the 95% level is chosen as most helpful. An error ellipse based on 95% is saying that the true value, if known, is expected to occur within the error ellipse 95% of the time.
Error estimate	A numeric value expressing the reliability of each piece of data in the pre-adjusted survey *network.* This value expresses the amount of adjustment that would be expected to occur during the least square adjustment and is used as a weighting to control the adjustment of better data. This value is usually applied consistently to distances, bearings and control coordinate values within each survey. The pre-adjustment estimates are based on date, equipment and surveyor. The refinements to these estimates are based the reports from the *least square adjustment/analysis*.

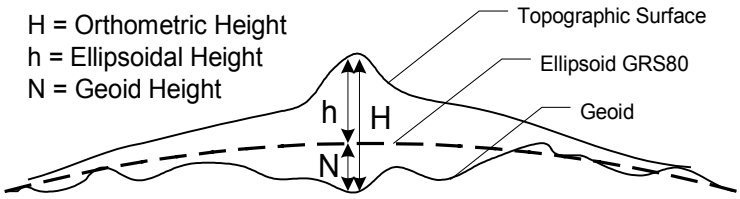
Term	Definition
Estate	The degree, quantity, nature and extent of interest which anyone has in lands or in any other property. Surface – All *rights* in the surface of the land except the oil, gas and other mineral or subsurface rights which a party owns including the right to transfer and dispose of the surface of that land. The surface estate is severed from the mineral estate in a conveyance when the grantor excepts or reserves all or part of the minerals from the land being conveyed. Sub-Surface – As opposed to surface estate. Includes more *rights* than mineral estate. Term originated by Congress in ANCSA and is continually being defined by the courts, who stated sand and gravel are included in the subsurface rights.
Event	Any activity, data submission, or communication that might trigger a *notification* and searchable through GC-01 Conduct Search. Activity Event. Any activity on the land submitted through the GC-03 Submit Event (manual) process by the Event Provider. Example: Survey fieldwork planned by BLM cadastral surveyors. Data Event. Any data submitted through the GC-06 Submit Data process that automatically sets a flag to trigger a *notification*. Example: Data has been updated. Communication Event. Any creation of a discussion forum, email group, information notice, sending an email, or information call submitted through the GC-10 Post Comment process. An activity event (e.g. data collection) may result in a data submission event.
Event Notification	The GeoCommunicator system process to match activity parameters against subscription parameters and to initiate notifications to the appropriate subscribers.
External trigger	A transaction in an associated system or database that causes the need for processing in NILS.
Fabric See ***Measurement Network*.**	A collection of topologically related *features*.
Feature	A cadastral land records object that has a field of type geometry. Features are stored in feature classes.
Field survey	*Measurement* of *features* for locating the position, or layout, of physical objects or theoretical position. For example, a property corner is theoretical, but a property corner monument is a physical object.
Field survey data set	See *data set*
Field survey setup file	A list of parameters and configurations for the setup of a *data collection device*. A file which contains the type of data to collect; geodetic *vs.* planar geometry; the hardware/communications parameters; the area of interest; setup instructions for custom in-field menus and data collection forms; paths to reference data (i.e., coverages), images, and documents; and the link from the *field survey* to its *survey project*.

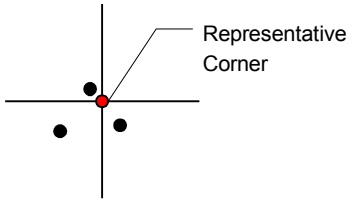
Term	Definition
Field survey setup file template	A form to assist a user in creating or editing a list of parameters and configurations for the setup of a *field survey setup file* for a *data collection device*.
Form	General term indicating interactive window with prompts to collect information. Account management form. Captures input from an administrator in the ***GC-09 Manage Accounts*** use case. Catalog form. Captures input from a data provider resulting in the creation or modification of the data provider's *catalog* entries in the ***GC-06 Submit Data*** use case. Provider account form. Captures input from a user applying for a data provider or event provider account through the ***GC-05 Manage Provider Account*** use case. Email event form. Captures input resulting in an email, which is sent to the administrator in the ***GC-10 Post Comment*** use case. Event submission form. Captures input resulting in an *event category* from an event provider in the ***GC-03 Submit Event*** process. Information notice form. Captures input resulting in a published request which is sent tot the administrator in the ***GC-10 Post Comment*** use case. Information request form. Captures input resulting in a data call request, which is sent to the administrator in the ***GC-10 Post Comment*** use case. Search parameter form. Captures input resulting in the research scope in the ***GC-01 Conduct Search*** process. Subscriber account form. Captures input form a subscriber resulting in the creation or modification of subscriber account information in the ***GC-07 Manage Subscriber Account*** use case.
Geoidal undulation correction	Correction term computed at a benchmark station and applied to the model computed orthometric height at the vicinity of the benchmark.
Intersection	The point where two lines cross.
Iteration limit	The maximum number of iterations an adjustment can have before it is assumed that the solution is diverging.
Least square analysis/ adjustment	A mathematical process that simultaneously combines all *measurements* in a *data set* and adjusts their residuals to derive the optimal value as well as statistics that include the reliability of each derived value.

Term	Definition
Legal description	The narrative and geometric description for a discrete area of land. Descriptions may be related to *parcels* (many-to-many) and to geometries. Area legal description (AKA Areal Reference) - e.g. geopolitical, PLS, Block-Lot, Mineral Survey, irrigation lots. Nominal; delimited in reference survey system having area taxonomy, nesting and division rules Perimeter legal description - record boundary, metes and bounds, sequenced set of bearings and distances, strip description, adjoiner description, riparian or aquatic area description, reference calls to natural features {contour, ridgeline, watercourse} Portion/remainder legal description - area as a quantity {e.g. 'north sixty acres of… 'the north four-hundred feet of…'}, exclusions; other reference calls; ambiguous areas that cannot be mapped relative to any reference.
Legal description geometry	The 'footprint' of a legal description. A spatial representation of an area that has been legally described within a nested survey-system hierarchy. The 'atomic unit' for building *parcels*.
Logical operators	Conditions, parameters of a query.
Map view	General term for the map interface that persists during a GeoCommunicator session.
Master catalog	The catalog of all *data*, *events*, and *reference documents* from all providers.
Master index	The index of all *data*, *events*, *reference document*, and communication opportunities submitted to the administrator from all providers. The master index is generated from the provider catalog(s).
Measured feature	A *feature* constructed from component elements in a *measurement network* by applying construction and computation methods. Measured features have topological association to component *features* and/or *measurements*. Example measured feature types: *legal description* (section, government lot, city lot, aliquot part, etc.), *true line, boundary, representative corner* (multiple; porcupine; theoretical), *Corner*, *Parcel*, *Administrative area*, etc. May include physical objects such as buildings and other structures. Example computations: section subdivision, *offset line*, *defining measurement*, *proportion*, *intersection* (distance-distance). Note: methods may be geodetic/non-geodetic.

Term	Definition
Measurement	1. The reduced and/or mean values of an observation set. The angular difference between readings, the distance, or the azimuth/bearing. 2. An object that is constructed as a result of computations performed using *observations*. 3. Measurements are of two kinds, direct and indirect. A direct measurement is made when the observed quantity is compared with the scale directly. An indirect measurement is made when the observed quantity is determined by several related and dependent observations. [Davis, Foote and Kelly] 4. Measurement must involve observation. No measurement is made until something is observed. Accordingly, the terms *measurement* and *observation* are often used synonymously. [Mikhail and Gracie]
Measurement data	The raw measurement files (e.g., GMM's INRAW), control points, coordinate files, survey source IDs, error estimates, and/or survey business rules that are associated with a *measurement data set*.
Measurement data set	A set of *measured features* constructed from survey points and other *measurement features*.
Measurement network	A set of topologically related *measurements* (coordinate points and lines) and constructions (area-based *features*, non-surveyed *features*). May be in various states of connectivity and adjustment. Pre-adjusted measurement network: Multiple coordinate values exist for some points, so lines which should be connected may not be (due to measurement *errors*). Adjusted measurement network: All *over-determined points* have unique coordinates. Legal description fabric: An adjusted measurement network to which constructions (terrain feature boundaries, non-survey data) have been added. All polygons representing legally described areas have been formed from the measurement network and other boundaries to support the parcel fabric. Parcel fabric: A feature class that represents a parcel configuration for a specific business purpose (e.g. ownership parcels, tax parcels, historic parcels). Parcel features may be associated with component features in the *legal description fabric*.
Measuring device	An instrument for determining the dimensions of a *feature* (as *readings*). Like total station, theodolite, transit, compass, steel tape, etc.

Term	Definition
Metadata	1. Information about objects - their source, derivation, construction, changes, and characteristics. 2. Metadata are data about data that describe the lineage, source, quality or other fitness-for-use information. (FGDC) Feature Class Lineage (transformations, etc.) Coordinate Systems and Datums Feature-level Spatial (geospatial) Lineage (parent-child) Source Quality-Accuracy Audit (transactions, versioning)
Observation	1. Single set of *measurement* values for a *feature*. The values may include vertical or zenith angle, horizontal angle, slope distance, backsight and foresight heights, etc. 2. The act of obtaining a distinct piece of information that helps describe the dimensions or spatial relationships between *points* on physical *features*. 3. Act of recognizing and noting some fact or occurrence, especially in nature, often involving the *measurement* of some magnitude with suitable instruments. Direct observation. A measure of the quantity whose value is desired. Example: a single measure of a horizontal angle. Observed value. A value of the quantity that is obtained by instrumental measurement of the quantity. The term observed value is often applied to the value of a quantity derived from instrumental measurement after corrections have been applied for systematic errors, but before accidental errors have been taken out by some method of adjustment. [ACSM]
Observation collection form	A list of configuration options to assist the user in the setup for the collection of a particular type of *observation*.
Observation set	A set of one or more *readings* from a *measuring device* (may be multiple observations for the same *feature*).
Offset line	A supplementary line close to and roughly parallel with a main line, to which it is referred by measured offsets. Where the line for which data are desired is in such position that it is difficult to measure over it, the required data are obtained by running an offset line in a convenient location and measuring offsets from it to salient points on the other line. [ACSM]

Term	Definition
Orthometric height	The distance from the geoid to a point measured along a line normal to the geoid. [BLM Training] 
Over-determined point	A point whose coordinate values may be derived in more than one way.
Parametric least square analysis/adjustment	A least square analysis/adjustment that considers the quality of *data* that varies throughout the data set. A weighted least square adjustment.
Parcel	A single cadastral unit, which is the spatial extent of the past, present, and future *rights* and interest in real property. [FGDC]
Parcel legal description	A composite description that contains all the legal descriptions that define a *parcel* and can be used to derive the full spatial extent of the *parcel*.
Point See ***Survey Point***	The position or location in a reference system determined by survey. [BLM]
Point-ID duplication protection	Prevents entry of an existing point identifier for any point already in the present data set into the *COGO procedure parameter form*.
Precision See ***Accuracy***	1. The degree of closeness or conformity of repeated measurements of the same quantity to each other. [Mikhail and Gracie] 2. The degree of refinement in the performance of an operation, or the degree of perfection in the instruments and methods used when making the measurements. A measure of the uniformity or reproducibility of the result. Precision relates to the quality of the operation by which the result is obtained, and is distinguished from accuracy which relates to the quality of the result. [ACSM] 3. The nearness of readings to one another which may not be accurate, i.e., measuring with a long tape. [Brown] 4. A quality associated with the refinement of instruments and measuring, indicated by the degree of uniformity and repeatability of measurements.
Procedure duplication protection	Prevents entry of an existing point procedure for any point already in the present *data set* into the *COGO procedure parameter form*.
Proportion	To equitably distribute systematic *errors*, between known *points*.

Term	Definition
Provider	All providers are event providers. There may be some providers that only have supply data or update data. These provdiers may be thought of as data providers. *Browsers* can submit a request to become an Event Provider by applying for an account with the event provider designation. Subscribers and Data Providers can become an Event Provider by requesting the event provider designation be added to their current account.
Reading See ***Observation*.**	1. A value taken from an arbitrary scale (chronometer, theodolite circle, compass, chain, etc.) returned by a *measuring device*. 2. A *measurement device's* direct output of *observations* (i.e. circle *readings*, distance, etc.). This can vary depending on the type of *measuring device*. 3. Readings can be averaged and have factors applied to them to achieve a more usable value that we are calling *Observations*. Example: four angle readings are averaged to obtain the observed angle. Example: a slope distance reading and vertical angle reading are automatically combined within the total station to derive an observed horizontal distance.
Reference document	Helpful technical information related to *events* or *data*. May have no direct relationship with a spatial data set (e.g. manuals, Request For Information (RFI), reports, etc.). Searchable in ***GC-01 Conduct Search.***
Reference features	Features used entirely, or in part to define other features.
Reliability values	Data describing the ellipse surrounding an adjusted point's coordinates that represent a statistical chance that the true coordinate values will be within the ellipse. Ninety-five percent chance is a usable measure.
Reliability parameter form	A *data* entry tool accessible prior to successive least square adjustment sessions that allows the user to set or adjust the *reliability values,* such as (1) to toggle on/off function to calculate *reliability values*, and (2) to set a buffer distance around the selected set of *measurement features* to limit the actual set of *measurement features* to be used when generating *reliability values.*
Representative corner	A *measured feature*, which has been chosen to be the corner position over other *measured features* in the immediate vicinity.(e.g. multiple, theoretical, porcupine) 
Research results	Map and tabular view of items that match the search parameters of the Research Scope and access permission level in the ***GC-01 Conduct Search*** process.

Term	Definition
Research scope	*Data* to be investigated for a given project defined by *area of interest* and *source* criteria. May include digital records and hardcopy records during a defined epoch. The sum total of the selected search parameters or the query including *spatial extent*.
Residual, error	1. The difference between any value of a quantity in a series of observations, corrected for known systematic errors, and the value of the quantity obtained from the mean or other adjustment of that series. [ACSM] 2. They [residuals] are similar to errors, but errors are obtained by subtracting the true value, rather than the best possible value, from the measurements. [Moffitt and Bouchard]. 3. The difference between any measured quantity and the most probable value for that quantity. It is the value which is dealt with in adjustment computations, since errors are indeterminate. The term 'error' is frequently used when 'residual' is in fact meant, and although they are very similar, there is a theoretical distinction. [Wolf]
Residual tolerance	1. A small distance (such as 0.01 feet) under which further refinement through network adjustment would not result in any meaningful positional refinement. 2. Tolerance - A mathematical term indicating the allowable variation from a standard or from specified conditions. [ACSM]
Restrictions (segregations)	Removal, for a specified period, subject to valid existing *rights*, of public lands from the operation of one or more of the public land laws, including the mining laws. Restrictions are administrative, judicial, or other limitations or permissions for the use and enjoyment of land by the land right holder. These are not transferred rights, although succeeding owners may agree to the same restriction on a Parcel. Not all restrictions are the result of a segregation. For example local governments often manage restrictions through zoning ordinances.
Restrictive covenant	An agreement creating an obligation contained in a deed, forbidding the commission of some act.
Right	1. A Right is a benefit or enjoyment in real property that can be conveyed, passed, or otherwise allocated to another for economic remuneration. [Black; FGDC] 2. An interest recognized and protected by the law, respect for which is a duty, and disregard of which is a wrong. [Burke; Salmond] 3. A capacity residing in one man of controlling, with the assent and assistance of the State, the actions of others. [Burke; Holland]
Right-of-way survey	The plat and field note record of the observations, measurements and monuments descriptive of a right-of-way. Right-of-way is the legal right to cross the lands of another. Also, used to indicate the strip of land for a road, railroad, power line, or easement.

Term	Definition
Robusting	A technique in *least square analysis/adjustment* where data discrepancies are localized to where they occur rather than the normal smoothing out over a large area. This is a technique to locate blunders. Robustness. This is a method of using least squares as a filtering mechanism for detection of blunders. Robustness averages the absolute value of a measurement's residual with its error estimate, and that average becomes the new error estimate in a readjustment. The measurements with large residuals get reassigned larger error estimates, and vice-versa. This enables the adjustment to be filtered to the suspect measurement. The success of robustness in blunder detection is a function of size of the blunder, number of blunders, and the geometry and redundancy of the traverse network. [GMM]
Search parameter form	GeoCommunicator form for actors to enter search parameters.
Site survey	This is a series of observations and measurements conducted at a construction site to determine the requirements for buildings, roads, and cut and fill.
Sketch	A draft or interim version of a *parcel*, that is used as the basis for creating a new *parcel* and/or to verify the geometry, attributes and validity of a given *parcel legal description*.
Spatial extent	Location on the ground (footprint). Includes any method for describing a point or area. Examples include Latitude/Longitude, PLSS, minimum bounding rectangle, boundaries (admin, other).
Spatial reference	Projection(s), coordinate system(s), datum used. Listed in Data *Catalog*.
Station	1. A definite point on the earth whose location has been determined by surveying methods. It may or may not be marked on the ground. A station usually is defined by the addition of a term which describes its origin or purpose [condensed from ACSM] 2. A definite point on the earth whose location has been determined by surveying methods. It may or may not be marked on the ground. A station usually is defined by the addition of a term which describes its origin or purpose. Usually marked on the ground by a monument of special construction, or by a natural or artificial structure. INSTRUMENT STATION - A station at which a surveying instrument is set up for making measurements. [ACSM]
Subdivision rule	See *legal description*. The available methods to divide or aggregate *parcels* according to a specific survey system.
Subscriber	Subscribers create an account on GeoCommunicator and set parameters for the types of activity and data *events* about which they would like to receive an automatic notification.
Subscriber account form	Form is displayed, populated with currently held values for that subscriber along with current dates. If not yet a subscriber (or provider), a blank form is displayed.

Term	Definition
Survey project	This is an organizational/system concept to represent a set of field activities. It's where and how all the relevant data and files are stored for future use. A Survey Project may be comprised of one or more *Field Surveys*.
Survey point	A *point feature* that has XYZ coordinate values. Any point in a *measurement network*. Each survey point has a list of coordinate values or a coordinate set.
Temporal constraints	Date and time range parameters.
Topological survey	A survey which has for its major purposes the determination of the configuration (relief) of the surface of the earth (ground) and the location of natural and artificial objects thereon. Also, the designation of an organization making such a survey. [ACSM]
Transaction agent	Any participant or party identified in land transaction.
Transect survey	This is a series of observations and measurements gathered to determine a profile or cross section of the land. These are most common in road, power line or other utility construction projects. Transect surveys may be used in agricultural practices.
Traverse	1. A series of connected lines of known length related to one another by known angles. [Moffitt and Bouchard] 2. A method of surveying in which lengths and directions of lines between points on the earth are obtained by or from field measurements, and used in determining positions of the points. A survey traverse may determine the relative positions of the points which it connects in series, and if tied to control stations on an adopted datum, the positions may be referred to that datum. CLOSED TRAVERSE-A survey traverse which starts and ends at the same station, or upon stations whose relative positions have been determined by other surveys of equal or higher order of accuracy. [ACSM] 3. A succession of straight lines connecting a succession of established points along a route of a survey [Davis, Foote and Kelly] 4. A sequence of field measurements (length and directions) if lines between points on the earth and used to determine positions of points. [Brown]
True line	1. The term true line is used to indicate the direct forward bearing from one monument to the next, as distinguished from a random line. [ACSM] 2. A line of constant bearing (rhumb line) between two corners of a survey. [BLM]
Vertical control survey	The measurements taken by surveying methods for the determination of elevation only with respect to an imaginary level surface, usually mean sea level. [ACSM]

Term	Definition
Weight, weighting See ***Error Estimate.***	Numeric values that are used to restrict the amount of adjustment of a measured value, based on the confidence in the measurement's reliability. A highly reliable *measurement* will have a small 'error estimate' and is referred to as being 'more weighted' than unreliable data. Surveying Weight. The relative reliability (or worth) of a quantity as compared with other values of the same quantity. If one value of a quantity has a weight of 2, and another value of the same quantity has a value of 1, the first value is worth twice the second value, and a mean value would be obtained by taking the weighted mean - twice the first value plus once the second value, the sum being divided by 3. [ACSM]
Withdrawal	Withholding an area of Federal land from settlement, sale, location, or entry under some or all of the general land laws, for the purpose of limiting activities under those laws in order to maintain other public values in the area, or reserving the area for a particular public purpose or program, or transferring jurisdiction over an area of Federal land, other than property from one management agency to another.

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